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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/711,302      | 11/14/2000  | Hong Jo Jeong        | 2950-0176P          | 6861             |

2292 7590 04/23/2003

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EXAMINER

CHU, KIM KWOK

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2653

DATE MAILED: 04/23/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/711,302

Applicant(s)

JEONG ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. Claims 1 and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mizumoto et al. (U.S. Patent 5,351,226).

Mizumoto teaches a method for checking the existence of an optical disk having all of the steps as recited in claims 1 and

4. For example, Mizumoto teaches the following:

(a) as in claim 1, checking whether a focus OK (locked) signal is asserted while moving an optical pickup 21 in the direction of the place where an optical disk 1 is placed (Figs. 5 and 6; step S2);

(b) as in claim 1, starting detection of the value of focus error if said focus OK signal is asserted (Figs. 5 and 6; step S2; focus servo signal is generated after switch 1 is closed; column 5, lines 48-53);

(c) as in claim 1, judging the existence of an optical disk, depending upon the magnitude of detected value (Figs. 5 and 6; step 2 determines the focus condition of the pull-in signal; column 6, lines 54-59); and

(d) as in claim 4, an optical disk 1 is judged to exist if the magnitude of the detected value is greater than a predefined reference level (Fig. 8; at t1, the pull-in signal has a certain predetermined magnitude so that the pull-in operation is effective).

3. Claims 5-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Satoh et al. (U.S. Patent 5,903,531).

Satoh teaches a method for checking the existence of an optical disk having all of the steps as recited in claims 5-8. For example, Satoh teaches the following:

(a) as in claim 5, examining whether the peak of focus error signal exceeds a predefined reference level, while moving an optical pickup in the direction of the place where an optical disk 11 is placed (Figs. 3 and 7; step A3);

(b) as in claim 5, detecting the magnitude of focusing signal of which the sign is opposite to the peak, if confirmed in the step (a) (Fig. 3; S-letter has two opposite peaks; step A3);

(c) as in claim 5, judging the existence of an optical disk 11, depending upon the magnitude of detected value (Figs. 3 and 7; steps A3 and A4);

(d) as in claim 6, the detection of the magnitude is carried out by sampling (digitizing) the focus error signal at constant intervals after the peak is detected and summing the

sampled values (Fig. 5; focus error is a summing signal; the summing circuit 23 is an A/D conversion device so that detected analog signals is digitized and then summed);

(e) as in claim 7, the absolute value of detected level is summed only if the detected level is less than a predefined reference level (Fig. 5; digitized signals in circuit 23 is in from of absolute values; the summed signal is always less than a arbitrary reference level); and

(f) as in claim 8, an optical disk (CD) is judged to exist if the magnitude of the detected value is greater than a predefined reference level (Fig. 8; steps A3 to A5).

4. Claim 9 is rejected under 35 U.S.C. § 102(b) as being anticipated by Mizumoto et al. (U.S. Patent 5,351,226).

Mizumoto teaches a method for checking the existence of an optical disk having all of the steps as recited in claim 9. For example, Mizumoto teaches the following:

(a) as in claim 9, detecting the magnitude of focus error signal of which the level is less than a predetermined reference level (Figs. 5 and 6; steps 2 and 3; column 6, lines 54-59); and

(b) as in claim 9, judging the existence of an optical disk depending upon the magnitude of detected value (Fig. 8, t1 has a predetermined reference level at step S2).

**Claim Rejections - 35 USC § 103**

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizumoto et al. (U.S. Patent 5,351,226) in view of Satoh et al. (U.S. Patent 5,903,531).

Mizumoto teaches a method for checking the existence of an optical disk very similar to that of the instant invention. For example, However, Mizumoto does not teach the following:

(a) as in claim 2, the value of focus error is obtained by sampling said focus error signal at constant intervals and summing the sampled values; and

(b) as in claim 3, the step (b) said summing is carried out on sampled focus error greater than a predefined reference level.

Satoh teaches a method for checking the existence of an optical disk having a summing circuit 23 to obtain a focusing error signal (Figs, 3 and 5).

Signals output from a photodetector such as Mizumoto's requires some kind of arithmetic operations so that a focusing error signal can be obtained. For example, in Fig. 5, Satoh uses a preamplifier device 23 as an arithmetic means. Hence, in order to calculate the focusing error signal, it would have been obvious to one of ordinary skill in the art at the time of invention to use a digital sampling means such as Satoh's amplifier 23 in Mizumoto's servo circuit 7 in order to sample and sum the signals detected from the photodetector, because Satoh's sampling means 23 provides digitized signals which can be summed in an arithmetic operation so that a focus error signal is produced.

Furthermore, although Satoh does not disclose the summing operation is carried out on sampled focus error greater than a predefined reference level, it is not novel because the predetermined reference level can be set to zero which means no signals are output from the photodetector. In other words, as long as there is a disk exist, the photodetector outputs detected signals, and then the summed circuit 23 generates a focus error signal.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takeya et al. (6,240,054) is pertinent because Takeya teaches an optical disc playback device having a disc discriminating device.

Fushiki (5,140,575) is pertinent because Fushiki teaches an optical disc playback device having a disc mount detecting means.

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.  
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032 between 9:30 am to 6:00 pm, Monday to Friday.

Kim-Kwok CHU  
Examiner AU2653  
April 14, 2003

(703) 305-3032

*William Korzuch*  
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